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Substitu	Substitute for form 1449A/B/PTO			Complete if Known		
				Application Number	10/774,515	
INF	ORMATI	ON DISC	LOSURE	Filing Date	February 10, 2004	
STA	STATEMENT BY APPLICANT			First Named Inventor	John T. Moore, et al.	
				Art Unit	2815 2813	
	(Use as man	y sheets as nec	essary)	Examiner Name	Not Yet Assigned	
Sheet	1	of	3	Attorney Docket Number	M4065.0697//P697-A	

Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, When	
nitials*	No.1	Number-Kind Code ² (If known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevar Figures Appear	
Mus	Α	US 2004/0035401	2/2004	Ramachandran et al.		
	В	US 2003/0212724	11/2003	Ovshinsky et al.		
	С	US 2003/0048744	3/2003	Ovshinsky et al.		
	D	US 2003/0212725	11/2003	Ovshinsky et al.		
	E	US RE 37,259E	7/2001	Ovshinsky		
	F	US 3,271,591	9/1966	Ovshinsky	\	
	G	US 3,961,314	6/1976	Klose et al.		
	Н	US 3,966,317	6/1976	Wacks et al.		
	ı	US 3,983,542	11/1976	Ovshinsky		
	J	US 3,988,720	10/1976	Ovshinsky		
	K	US 4,177,474	12/1979	Ovshinsky		
	L	US 4,267,261	5/1981	Hallman et al.		
	M	US 4,597,162	7/1986	Johnson et al.		
	N	US 4,608,296	8/1986	Keem et al.		
	0	US 4,637,895	1/1987	Ovshinsky et al.		
	Р	US 4,646,266	2/1987	Ovshinsky et al.		
	Q	US 4,664,939	5/1987	Ovshinsky		
	R	US 4,668,968	5/1987	Ovshinsky et al.		
	s	US 4,670,763	6/1987	Ovshinsky et al.		
	T	US 4,673,957	6/1987	Ovshinsky et al.		
1	Ū	US 4,678,679	7/1987	Ovshinsky		
	v	US 4,696,758	9/1987	Ovshinsky et al.		
	w	US 4,698,234	10/1987	Ovshinsky et al.		
	X	US 4,710,899	12/1987	Young et al.		
1	Y	US 4,728,406	3/1988	Banerjee et al.		
	Z	US 4,737,379	4/1988	Hudgens et al.		
	A1	US 4,766,471	8/1988	Ovshinsky et al.		
	B1	US 4,769,338	9/1988	Ovshinsky et al.		
	C1	US 4,775,425	10/1988	Guha et al.		
-	D1	US 4,788,594	11/1988	Ovshinsky et al.		
+-	E1	US 4,809,044	2/1989	Pryor et al.		
-	F1	US 4,818,717	4/1989	Johnson et al.		
+	G1	US 4,843,443	6/1989	Ovshinsky et al.	<u> </u>	
- 	H1	US 4,845,533	7/1989	Pryor et al.		
	11	US 4,853,785	8/1989	Ovshinsky et al.		
+-	J1	US 4,891,330	1/1990	Guha et al.		
	K1	US 5,128,099	7/1992	Strand et al.		
	L1	US 5,159,661	10/1992	Ovshinsky et al.	 	
\dashv	M1	US 5,166,758	11/1992	Ovshinsky et al.		
	N1	US 5,177,567	1/1993	Klersy et al.		
-	01	US 5,296,716	3/1994	Ovshinsky et al.		
	P1	US 5,335,219	8/1994	Ovshinsky et al.		
- 	Q1	US 5,359,205	10/1994	Ovshinsky		
1	R1	US 5,359,205	8/1994	Ovshinsky et al.	- 	
- \}-	S1	US 5,406,509	4/1995	Ovshinsky et al.		
me	T1	US 5,414,271	5/1995	Ovshinsky et al.		

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
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Subst	Substitute for form 1449A/B/PTO			Complete if Known		
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IN	FORMATIC	ON DISC	CLOSURE	Filing Date	February 10, 2004	
ST	ATEMENT	BY AP	PLICANT	First Named Inventor	John T. Moore, et al.	
				Art Unit	2815 2813	
	(Use as many	sheets as ne	cessary)	Examiner Name	Not Yet Assigned	
Sheet	2	of	3	Attorney Docket Number	M4065.0697//P697-A	

/MUS		US 5,534,711	7/1996	Ovshinsky et al.	
_	V1	US 5,534,712	7/1996	Ovshinsky et al.	
7	W1	US 5,536,947	7/1996	Klersy et al.	
	X1	US 5,543,737	8/1996	Ovshinsky	
	Y1	US 5,591,501	1/1997	Ovshinsky et al.	
	Z1	US 5,596,522	1/1997	Ovshinsky et al.	
	A2	US 5,687,112	11/1997	Ovshinsky	
	B2	US 5,694,054	12/1997	Ovshinsky et al.	
	C2	US 5,714,768	2/1998	Ovshinsky et al.	
	D2	US 5,825,046	10/1998	Czubatyj et al.	
ŀ	E2	US 5,912,839	6/1999	Ovshinsky et al.	
	F2	US 5,933,365	8/1999	Klersy et al.	
	G2	US 6,011,757	1/2000	Ovshinsky	
	H2	US 6,087,674	7/2000	Ovshinsky et al.	
	12	US 6,141,241	10/2000	Ovshinsky et al.	
	J2	US 6,339,544	1/2002	Chiang et al.	
	K2	US 6,404,665	6/2002	Lowery et al.	
	L2	US 6,429,064	8/2002	Wicker	
	M2	US 6,437,383	8/2002	Xu	
	N2	US 6,462,984	10/2002	Xu et al.	
_	02	US 6,480,438	11/2002	Park	
	P2	US 6,487,113	11/2002	Park et al.	
	Q2	US 6,501,111	12/2002	Lowery	
	R2	US 6,507,061	1/2003	Hudgens et al.	
	S2	US 6,511,862	1/2003	Hudgens et al.	
	T2	US 6,511,867	1/2003	Lowery et al.	
	U2	US 6,512,241	1/2003	Lai	
	V2	US 6,514,805	2/2003	Xu et al.	
	W2	US 6,531,373	3/2003	Gill et al.	
	X2	US 6,534,781	3/2003	Dennison	
<u>.</u>	Y2	US 6,545,287	4/2003	Chiang	
	Z2	US 6,545,907	4/2003	Lowery et al.	
-	A3	US 6,555,860	4/2003	Lowery et al.	
	B3	US 6,563,164	5/2003	Lowery et al.	
	C3	US 6,566,700	5/2003	Xu Xu	
	D3	US 6,567,293	5/2003	Lowery et al.	
	E3	US 6,569,705	5/2003	Chiang et al.	
	F3	US 6,570,784	5/2003	Lowery	
+	G3	US 6,576,921	6/2003	Lowery	
+	H3	US 6,586,761	7/2003	Lowery	
+-	13	US 6,589,714	7/2003	Maimon et al.	-
+	J3	US 6,590,807	7/2003	Lowery	
+	K3	US 6,593,176	7/2003	Dennison	
+	L3	US 6,597,009	7/2003	Wicker	
+	M3	US 6,605,527	8/2003	Dennison et al.	
+	N3	US 6,613,604	9/2003	Maimon et al.	
+	03	US 6,621,095	9/2003	Chiang et al.	
+	P3	US 6,625,054	9/2003	Lowery et al.	
1/	Q3	US 6,642,102	11/2003	Xu Xu	
ine	100	US 6,646,297	11/2003	Dennison	

Approved for use through 07/31/2006. OMB 0651-0031
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11	NFORMATIO	N DIS	CLOSURE	Filing Date	February 10, 2004	
S	STATEMENT BY APPLICANT			First Named Inventor	John T. Moore, et al.	
_				Art Unit	2815 28)3	
	(Use as many s	iheets as ne	cessary)	Examiner Name	Not Yet Assigned	
Sheet	3	of	3	Attorney Docket Number	M4065.0697//P697-A	

M	2 S3	US 6,649,928	11/2003	Dennison	
4	Т3	US 6,667,900	12/2003	Lowery et al.	
	U3	US 6,671,710	12/2003	Ovshinsky et al.	
	V3	US 6,673,648	1/2004	Lowrey	
	W3	US 6,673,700	1/2004	Dennison et al.	
	Х3	US 6,674,115	1/2004	Hudgens et al.	
	Y3	US 6,687,427	2/2004	Ramalingam et al.	
	Z3	US 6,690,026	2/2004	Peterson	
	A4	US 6,696,355	2/2004	Dennison	
$\mathcal{N}I$	B4	US 6,687,153	2/2004	Lowery	
Ψ	C4	US 6,707,712	3/2004	Lowery	
Junes	D4	US 6,714,954	3/2004	Ovshinsky et al.	

	FOREIGN PATENT DOCUMENTS									
Evanieur	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,					
Examiner Initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Retevant Passages or Retevant Figures Appear					

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		NON PATENT LITERATURE DOCUMENTS	ļ
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or cauntry where published.	T²

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PTO/SB/08A (10-01)
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U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE ond to a collection of information unless it contains a valid OMB control outside. Under the Paperwork Reduction Act of 1995, no persons are required to res

Sut	Substitute for form 1449A/PTO			C mplete if Known				
1.8		N DI	CCI OCUDE	Application Number	Not Yet Assigned 10 7745	1774515		
	NFORMATIO			Filing Date	February 10, 2004			
2	STATEMENT BY APPLICANT			First Named Inventor	John T. Moore			
	(use as many s	heets as	necessary)	Art Unit	Not Yet Assigned 2813			
				Examiner Name	Not Yet Assigned			
Sheet	1	of	8	Attorney Docket Number	M4065.0697-A			

			U.S. PA	TENT DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number Number-Kind Code ² (# known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
mo	AA	6,388,324	05/14/2002	Kozicki et al. **	- Second Pocus
Zn_	AB	US 2002/0000666	01/03/2002	Kozicki et al. **	
1	AC	5,500,532	03/19/1996	Kozicki et al. **	
	AD	US 2002/0168820	11/14/2002	Kozicki et al. **	
	ΑE	6,469,364	10/22/2002	Kozicki **	
	AF	US-2003/0137896-A1	07-24-2003	Kozicki **	
	AG	6,473,332	10/2002	Ignatiev et al. **	
1_	AH	6,469,364	10/2002	Kozicki **	
	Al	2002/0168820 App.	11/2002	Kozicki **	
	AJ	4,419,421	12/1983	Wichelhaus, et al. **	
	AK	6,487,106	11/26/2002	Kozicki **	
	AL	5,314,772	5/24/1994	Kozicki **	
	AM	2002/0190350 APP	12/19/2002	Kozicki **	
	AN	2003/0027416 APP	2/6/2003	Moore **	
	AO	2003/0001229 APP	1/2/2003	Moore et al. **	
	AP	2002/0127886 APP	9/12/2002	Moore et al. **	
	AQ	2002/0123170 APP	9/5/2002	Moore et al. **	
	AR	2002/0163828 APP	11/2002	Krieger et al. **	
	AS	6,072,716	6/2000	Jacobson et al. **	<u> </u>
	AT	5,272,359	12/93	Nagasubramanian et al. **	
	AU.	4,671,618	6/87	Wu et al. **	
	AV	4,800,526	1/89	Lewis **	
	AW	2003/0035314	02/20/03	Kozicki **	
MAD	AX	2003/0035315	02/20/03	Kozicki **	

		FOREI	GN PATENT	DOCUMENTS		
Examiner	Cite	Foreign Patent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where Relevant	Т
Initials*	No.1	Country Code ³ -Number ⁴ -Kind Code ⁶ (if known)	MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	
(IMI)	ВА	WO 97/48032	12/18/1997	Kozicki et al. **		
(Depl)	BB	WO 99/28914	06/10/1999	Kozicki et al. **		\vdash
	BC	<u> </u>	i			t^-
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Applicant's unique citation designation number (optional). ²See attached Kinds Codes of USPTO Patent Documents at www.uspto.goy or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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Approved for use through 10/31/2002.OMB 0651-0031

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				Application Number	Not Yet Assigned	
11	VFORMATION	ON DIS	CLOSURE	Filing Date	February 10, 2004	
S	STATEMEN'	T BY A	PPLICANT	First Named Inventor	John T. Moore	
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	ſ	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	_
xaminer nitials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
mo	CA	Abdel-All, A.; Elshafie,A.; Elhawary, M.M., DC electric-field effect in bulk and thin-film Ge5As38Te57 chalcogenide glass, Vacuum 59 (2000) 845-853. **	
1	СВ	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9 (1972) 1182-1189. **	Г
	СС	Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous alloys, Rev. Mod. Phys. 50 (1978) 209-220. **	
	CD	Afifi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se75Ge25-xSbx, Appl. Phys. A 55 (1992) 167-169.	
	CE	Afifi,M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor GexSe1-x, Egypt, J. Phys. 17 (1986) 335-342.	İ
	CF	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag2Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139. **	
	CG	Aleksiejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171. **	
	CH	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717. **	Г
	CI	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic glasses, Solid state Ionics 136-137 (2000) 1085-1089. **	
	3	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104. **	
7	СК	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810 **	
	CL	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557. **	
	СМ	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state Ionics 136-137 (2000) 1025-1029. **	
	CN	Belin, R.; Zerouale, A.; Pradel, A.; Ribes, M., Ion dynamics in the argyrodite compound Ag7GeSe5I: non-Arrhenius behavior and complete conductivity spectra, Solid State Ionics 143 (2001) 445-455. **	
	СО	Benmore, C.J.; Salmon, P.S., Structure of fast ion conducting and semiconducting glassy chalcogenide alloys, Phys. Rev. Lett. 73 (1994) 264-267. **	
	СР	Bernede, J.C., Influence du metal des electrodes sur les caracteristiques courant-tension des structures M-Ag2Se-M, Thin solid films 70 (1980) L1-L4. **	
	ca	Bernede, J.C., Polarized memory switching in MIS thin films, Thin Solid Films 81 (1981) 155-160. **	
	CR	Bernede, J.C., Switching and silver movements in Ag2Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104. **	
	cs	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64.	
	СТ	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag2Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171.	
	ပ	Bernede, J.C.; Khelil, A.; Kettaf, M.; Conan, A., Transition from S- to N-type differential negative resistance in Al-Al2O3-Ag2-xS 1+x thin film structures, Phys. Stat. Sol. (a) 74 (1982) 217-224. **	
4	CV	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg4l5, Solid State lonics 70/71 (1994) 72-76. **	
This	CW	Boolchand, P., The maximum in glass transition temperature (Tg) near x=1/3 in GexSe1-x	T

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0851-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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s	ubstitute for form 1449B/	PTO		Complete If Known		
1				Application Number	Not Yet Assigned	
	NFORMATION	ON DISC	CLOSURE	Filing Date	February 10, 2004	
	STATEMEN'	T BY AF	PLICANT	First Named Inventor	John T. Moore	
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_	(use as many	y sheets as ne	cessary)	Examiner Name	Not Yet Assigned	
Sheet	3	of	8	Attorney Docket Number	M4065.0697-A	

Sheet		3	of	8	Attorney Docket Number M4065.0697-A
	- 	Glasses. A	Asian J	oumal of Physics (2000	19 709-72 **
1	CX	Boolchand	I, P.; B	resser, W.J., Mobile silv	er ions and glass formation in solid electrolytes,
1/14		Nature 410	0 (2001	I) 1070-1073. **	, ,
1	CY	Boolchand	I, P.; G	eorgiev, D.G.; Goodma	n, B., Discovery of the Intermediate Phase in
		Chalcoger	nide Gla	asses, J. Optoelectronic	s and Advanced Materials, 3 (2001), 703 **
11	CZ	Boolchand	I, P.; S	elvanathan, D.; Wang, `	7.; Georgiev, D.G.; Bresser, W.J., Onset of rigidity in
		steps in ch	nalcoge	enide glasses, Propertie	s and Applications of Amorphous Materials, M.F.
1 1	1	Thorpe an	d Tichy	/, L. (eds.) Kluwer Acad	emic Publishers, the Netherlands, 2001, pp. 97-132.
 	CA1	Roolchand	D . E.	navoilor P.M.: Tonbov	er, M., Structural ordering of evaporated amorphous
1 1	JOA!	chalcogen	i, r., ci ide allo	v films: mle of thermal	annealing, Diffusion and Defect Data Vol. 53-54
		(1987) 415	5-420.	**	ameaning, Director and Delect Data Vol. 33-34
	CB1				J.; Suranyi, P., Structural origin of broken chemical
		order in a	GeSe2	glass, Phys. Rev. B 25	(1982) 2975-2978. **
1 1	CC1				., Broken chemical order and phase separation in
igwdot	H			s, Solid state comm. 45	
	CD1	Boolchand	I, P., B	resser, W.J., Compositi	onal trends in glass transition temperature (Tg),
		FCECS II	onnecu Iniv Ci	ncinnati (October 28, 19	mical phase separation in chalcogenides, Dept. of
	CE1	Boolchand	I P · G	mthaus J Molecular S	tructure of Melt-Quenched GeSe2 and GeS2 glasses
		compared	. Proc.	Int. Conf. Phys. Semica	and. (Eds. Chadi and Harrison) 17 th (1985) 833-36. **
	CF1	Bresser, V	V.; Boo	Ichand, P.; Suranyi, P.,	Rigidity percolation and molecular clustering in
		network gl	asses,	Phys. Rev. Lett. 56 (19	86) 2493-2496. **
	CG1	Bresser, V	V.J.; Bo	oolchand, P.; Suranyi, P	.; de Neufville, J.P, Intrinsically broken chalcogen
<u> </u>	0114	chemical c	order in	stoichiometric glasses	Journal de Physique 42 (1981) C4-193-C4-196. **
<u> </u>	CH1	Bresser, V	V.J.; Bo	oolchand, P.; Suranyi, P	.; Hernandez, J.G., Molecular phase separation and
	CI1	Caben D	e in Ge	Sez glass, riyperline ir	nteractions 27 (1986) 389-392. ** myak, L.; Gartsman, K.; Jakubowicz, A., Room-
		Temperati	, Gliet, ire ele	otric field induced creat	ion of stable devices in CulnSe2 Crystals, Science
		258 (1992	271-2	274. **	of stable devices in odificez orystals, ocience
	CJ1	Chatterjee	, R.; A	sokan, S.; Titus, S.S.K.	Current-controlled negative-resistance behavior and
		memory sv	<u>witch</u> in	g_in bulk As-Te-Se glas	ses, J. Phys. D: Appl. Phys. 27 (1994) 2624-2627. **
	CK1				duced by Ag photodoping in glassy GexSe1-x films,
\vdash	- 0.4	Appl. Phys	s. Lett.	<u>37 (1980) 1075-1077.</u>	**
	CL1	Chen, G.;	Cheng	, J., Role of nitrogen in	the crystallization of silicon nitride-doped
 	CM1	Chen G	Chena	J. Chen W. Effect of	c. 82 (1999) 2934-2936. ** Si3N4 on chemical durability of chalcogenide glass,
				ids 220 (1997) 249-253	
	CN1	Cohen, M.	H.; Ne	ale, R.G.; Paskin, A. A	model for an amorphous semiconductor memory
		device, J.	Non-Ci	ryst. Solids 8-10 (1972)	885-891. **
	CO1	Croitoru, N	1.; Laza	arescu, M.; Popescu, C	; Telnic, M.; and Vescan, L., Ohmic and non-ohmic
 - -	1004	conduction	n in sor	ne amorphous semicon	ductors, J. Non-Cryst. Solids 8-10 (1972) 781-786. **
	CP1				of beta-Ag2Te and beta-Ag2Se from 4.2 to 300K, J.
 	CQ1			967) 753-756. **	n, Search 1 (1970) 152-155. **
- -	CR1				, D.V., Electrical phenomena in amorphous oxide
				Phys. 33 (1970) 1129-	
9	CS1	Dejus, R.J	.; Susn	nan, S.; Volin, K.J.; Mo	ntague, D.G.; Price, D.L., Structure of Vitreous Ag-Ge-
\sqsubseteq		Se, J. Non	-Cryst.	Solids 143 (1992) 162	180. **
Am	CT1	den Boer,	W., Th	reshold switching in hy	frogenated amorphous silicon, Appl. Phys. Lett. 40
V		(1982) 812	<u> 2-813.</u>	**	

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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S	TATEMEN'	T BY A	PPLICANT	First Named Inventor	John T. Moore	
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O.I.CC.		-	<u> </u>		Attorney Docket Number	M4065.0697-A
	ICU1	Drusedau.	T.P.: P	anckow. A.N.: Klabu	nde, F., The hydrogena	ted amombous
Sha	1	silicon/nan	odisper	rse metal (SIMAL) sy	stem-Films of unique of	lectronic properties, J. Non-
JIM	1			200 (1996) 829-832.		recuonic properties, 3. Non-
	CV1	El Bouchai	ri B B	Bernede J.C. Burgar	Id P Properties of Act	2-xSe1+x/n-Si diodes, Thin Solid
1	-	Films 110	(1983)	107-113. **	a, i ., i ropolilos di Aga	E-x0811 Wil-Ol dibdes, Thirt Solid
	CW1	FI Gharras	7 · Bo	urahla A · Vautier (Role of photoinduces	d defects in amorphous GexSe1-
1		x photocor	ductivit	by J. Non-Cryst Soli	ds 155 (1993) 171-179.	telecis ili allioipilous GexSe !-
	CX1	FI Ghrandi	R · Ca	alas .I : Galibert G :	Average M. Silver pho	todissolution in amorphous
		chalcogeni	de thin	films. Thin Solid Film	ns 218 (1992)259-273.	**
	CY1	El Ghrandi	. R.: Ca	alas, J.: Galibert, G	An dissolution kinetics i	n amorphous GeSe5.5 thin films
		from "in-sit	u" resis	stance measurement	s vs time. Phys. Stat. Sc	ol. (a) 123 (1991) 451-460. **
	CZ1	El-kady, Y.	L The	threshold switching	in semiconducting class	s Ge21Se17Te62, Indian J.
]	Phys. 70A	(1996)	507-516. **	ocoon addang glass	o coz roc 17 reoz, maiarro.
	CA2	Elliott, S.R.	. A unit	fied mechanism for n	netal photodissolution in	amorphous chalcogenide
	i -	materials.	J. Non-	Cryst. Solids 130 (19	91) 85-97. **	amorphous chalcogeride
	CB2	Elliott, S.R.	. Photo	dissolution of metals	in chalcogenide glasse	es: A unified mechanism, J.
		Non-Cryst.	Solids	137-138 (1991) 103	1-1034. **	
	CC2	Elsamanou	idy, M.I	M.; Hegab, N.A.; Fac	el. M., Conduction med	hanism in the pre-switching
	<u> </u>	state of this	n films (containing Te As Ge	Si, Vacuum 46 (1995) 7	701-707. **
	CD2	El-Zahed, I	H.; El-K	orashy, A., Influence	of composition on the	electrical and optical properties
		of Ge20Bix	(Se80-)	c films, Thin Solid Fili	ns 376 (2000) 236-240.	, **
	CE2	Fadel, M.,	Switchi	ng phenomenon in e	vaporated Se-Ge-As thi	in films of amorphous
		chalcogeni	de glas	s, Vacuum 44 (1993) 851-855. **	·
	CF2	Fadel, M.;	El-Shai	r, H.T., Electrical, the	rmal and optical proper	rties of Se75Ge7Sb18, Vacuum
		43 (1992) 2	253-257	7. **		
	CG2	Feng, X. ;E	Bresser,	, W.J.; Boolchand, P	, Direct evidence for sti	ffness threshold in Chalcogenide
		Iglasses, Pi	nys. Re	v. Lett. 78 (1997) 44	22-4425. **	_
	CH2	Feng, X.; E	Bresser,	, W.J.; Zhang, M.; Go	odman, B.; Boolchand,	P., Role of network connectivity
ı		on the elas	tic, plas	stic and thermal beha	avior of covalent glasses	s, J. Non-Cryst. Solids 222
	L	(1997) 137				
	CI2	Fischer-Co	lbrie, A	; Bienenstock, A.; F	uoss, P.H.; Marcus, M.A	A., Structure and bonding in
		photodiffus	ed amo	orphous Ag-GeSe2 tl	nin films, Phys. Rev. B 3	38 (1988) 12388-12403. **
1	CJ2	Fleury, G.;	Hamou	ı, A.; Viger, C.; Vauti	er, C., Conductivity and	crystallization of amorphous
		selenium,	hys. S	tat. Sol. (a) 64 (1981	<u>) 311-316. ** </u>	
ı	CK2	Fritzsche, I	H, Optio	cal and electrical ene	rgy gaps in amorphous	semiconductors, J. Non-Cryst.
	01.0	Solids 6 (1				
1	CL2	intzsche, i	⊣., Elec	tronic phenomena ir	amorphous semicondu	uctors, Annual Review of
-	0140			2 (1972) 697-744.		
- 1	CM2	Gates, B.;	wu, Y.;	Yın, Y.; Yang, P.; Xi	a, Y., Single-crystalline	nanowires of Ag2Se can be
- 1	1	synthesize	u by ter	mpiajung against nan	owires of trigonal Se, J.	Am. Chem. Soc. (2001)
 -	CN2	Currently A	D. Nati	omura M. Chimi	T. Comul.: M. Ot	
1 3	CIVE	Gosain, D.	r.; Nak	amura, M.; Snimizu,	1.; Suzuki, M.; Okano,	S., Nonvolatile memory based
		1013-1018	**	se dansidon phenom	ena in tellunde glasses,	Jap. J. Appl. Phys. 28 (1989)
	CO2			T · Kengin V · So	nolehopuf C. Sa-s	I.; Lucas, J., Indentation creep
1	ا	of Ge-Se	halcoce	n, r., neryviri, v., od enide alasses helow	Ta: elastic monuos on	d non-Newtonian flow, J. Non-
1		Cryst Solic	is 298	(2002) 260-269. **	. a. ciasuc iecovety an	d nor-newtonian now, J. Non-
 - 	CP2	Guin J-P	Rouve	T · Sanglehoeuf	-C: Melecoet I : Luces	, J., Hardness, toughness, and
.)	-	scratchabili	ity of ne	.,, canglebosul, s ?manium-selenium /	:-o, meiswei, i., Lucas,	. Am. Ceram. Soc. 85 (2002)
W	1	1545-52. *	*	amam scienium (. Am. Ceram. 300. 03 (2002)
Imis	CQ2			lectrical switching an	d memory effects in am	orphous chalcogenides, J. Non-
			., 0	and and and and	aoniory oneces in ant	orprious dialogeniues, J. NON-

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0851-0031
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Sheet		5	of	8	Attorney Docket Number M4065.069	7-A	
Times	.	Cryst, Sol.	3 (197	70) 148-154. **			\equiv
9	CR2	Haberland, amorphous	D.R.; semi	Stiegler, H., New exp conductors, J. Non-Cr	eriments on the charge-controlled sw yst. Solids 8-10 (1972) 408-414. **	_	
	CS2	Haifz, M.M and electric	.; Ibral cal pro	him, M.M.; Dongol, M. perties of As-Se-Cu g	; Hammad, F.H., Effect of compositio lasses, J. Apply. Phys. 54 (1983) 195	50-1954. **	
	CT2	effects in n	netal/a	-Si:H/metal devices, I	ell, A.J.; Le Comber, P.G.; Owen, A.Int. J. Electronics 73 (1992) 911-913.	**	
	CU2	Si:H/metal (2000) 105	room 8-106	temperature quantise 1. **	Rose, M., DC and AC measurement d resistance devices, J. Non-Cryst. Sc	olids 266-269	
	CV2	resistance (1996) 825	effect: -828.	s in metal-a-Si:H-meta **	n, A.E., Theory of room temperature I thin film structures, J. Non-Cryst. So	olids 198-200	
	CW2	ballistic ele	ctron	effects in metal-amorp	omber, P.G.; Rose, M.J., Analogue m Phous silicon structures, Phil. Mag. B	63 (1991) 349-	
	CX2	Japan. J. A	\ppl. P	hys. 13 (1974) 1163-			
	CY2	chalcogeni	de ser	niconductors, Vacuun	emory switching phenomena in thin fin 15 (1994) 459-462.	•	
	CZ2	J. Non-Cry	st. Sol	iids 116 (1990) 191-2(havior in II-IV-V2 amorphous semico	- '	
	CA3	threshold o	ompo	sition, J. Optoelectron	tructures of glassy GexSe1-x around ics and Advanced Materials 3 (2001)	199-214. **	
	СВЗ	Hu, J.; Sne devices, J.	ll, A.J. Non-C	.; Hajto, J.; Owen, Ā.Ē Cryst. Solids 227-230	., Constant current forming in Cr/p+a (1998) 1187-1191. **	-/Si:H/V thin film	
	CC3	Hu, J.; Haj non-metal (1996) 37-	transit	Snell, A.J.; Owen, A.E ion in Cr-hydrogenate	.; Rose, M.J., Capacitance anomaly d d amorphous Si-V thin-film devices, F	near the metal- Phil. Mag. B. 74	
	CD3	devices, Pl	hil. Ma	g. B 80 (2000) 29-43.			
	CE3	semicondu	cting g	lasses As-Te-Ge, So	a, K., Electrical and thermal propertie	•	
	CF3	amorphous	films	of Ge2S3, J. Non-Cry	study on the photo-enhanced diffusionst. Solids 35 & 36 (1980) 1061-1066.	**	
	CG3	lyetomi, H. clustering	; Vash of Ag a	ishta, P.; Kalia, R.K., itoms, J. Non-Cryst. S	Incipient phase separation in Ag/Ge/Solids 262 (2000) 135-142. **	Se glasses:	
	СНЗ	Jones, G.; Solid Films	Collins 40 (1)	s, R.A., Switching pro 977) L15-L18. **	perties of thin selenium films under pu		
	CI3	Joullie, A.N switching, I	1.; Mai Phys.	rucchi, J., On the DC Stat. Sol. (a) 13 (1972			
	C13	Joullie, A.N Bull. 8 (197	1.; Mai (3) 43	rucchi, J., Electrical pr 3-442. **	operties of the amorphous alloy As25	i	
T^{-}	СКЗ	Kaplan, T.; Solids 8-10	Adler (1972	D., Electrothermal sv	vitching in amorphous semiconductor	s, J. Non-Cryst.	
	CL3	Kawaguchi	, T.; M	lasui, K., Analysis of c	hange in optical transmission spectra . J. Appl. Phys. 26 (1987) 15-21. **	resulting from Ag	
T	СМЗ	Kawasaki,	M.; Ka	wamura, J.; Nakamui	ra, Y.; Aniya, M., Ionic conductivity of ics 123 (1999) 259-269. **	Agx(GeSe3)1-x	
Ims	CN3	Kolobov, A	.V., Oi	n the origin of p-type of 1996) 728-731. **	conductivity in amorphous chalcogenia	des, J. Non-Cryst.	

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Sheet		6	of	8	Attorney Docket Number M4065.0697-A
Mus	CO3	137-138 (1	991) 1	027-1030. **	f silver in vitreous chalcogenide films, J. Non-Cryst. Solids
1	CP3	Non-Cryst.	Solids	s 194 (1996) 256	
	CQ3	amorphous	s GeSe	eTI chalcogenide	I.H.; Hegab, N.A.; Abdel-Aziz, M.M., Memory switching in semiconductor films, Thin Solid Films 240 (1994) 143-146.
	CR3	Lakshmina devices: rr 16-19. **	rayan, nemory	K.N.; Srivastava and switching r	a, K.K.; Panwar, O.S.; Dumar, A., Amorphous semiconductor mechanism, J. Instn Electronics & Telecom. Engrs 27 (1981)
	CS3	chalcogeni	de gla	sses, Indian Jou	d approach to study the memory and threshold switching imal of pure & appl. phys. 29 (1991) 303-304. **
	СТЗ	Leimer, F.; with blockii (1975) K12	Stotze ng Al c 9-K13	el, H.; Kottwitz, A contacts influence 2. **	A., Isothermal electrical polarisation of amorphous GeSe films ed by Poole-Frenkel conduction, Phys. Stat. Sol. (a) 29
	CU3	Appl. Phys	. Lett.	46 (1985) 543-54	ner, A.R., Photoinduced diffusion of Ag in GexSe1-x glass,
	CV3	system, Ja	p. J. A	ppl. Phys. 11 (19	kuda, M., Polarized memory effect observed on Se-SnO2 972) 1657-1662. **
	CW3	Matsushita selenium th	, T.; Ya nin film	amagami, T.; Ok ıs, Jpn. J. Appl. F	kuda, M., Polarized memory effect observed on amorphous Phys. 11 (1972) 606. **
	СХЗ	Mazurier, F V2O5 base	.; Lev	y, M.; Souquet, J ses, Journal de l	J.L, Reversible and irreversible electrical switching in TeO2- Physique IV 2 (1992) C2-185 - C2-188. **
	CY3	Messoussi M/Se struc	, R.; B tures (emede, J.C.; Bei M=Ni,Bi), Mat. C	nhida, S.; Abachi, T.; Latef, A., Electrical characterization of Chem. And Phys. 28 (1991) 253-258.
	CZ3	Mitkova, M and constra	.; Bool aint the	chand, P., Micro eory, J. Non-Crys	scopic origin of the glass forming tendency in chalcogenides st. Solids 240 (1998) 1-21, **
	CA4	Mitkova, M metallizatio	.; Kozi n cell	cki, M.N., Silver devices, J. Non-	incorporation in Ge-Se glasses used in programmable Cryst. Solids 299-302 (2002) 1023-1027. **
	CB4	Miyatani, S (1973) 423	iy., E	lectronic and ion	conduction in (AgxCu1-x)2Se, J. Phys. Soc. Japan 34
	CC4	(1959) 996	-1002.	**	n beta-Ag2Te and beta-Ag2Se, Journal Phys. Soc. Japan 14
	CD4	(1968) 1-17	7. **		containing transition metal ions, J. Non-Cryst. Solids 1
	CE4	transitions	in chal	cogenide thin file	nura, M.; Suzuki, M., Nonvolațile memory based on phase ms, Jpn. J. Appl. Phys. 32 (1993) 564-569. **
	CF4	Nakayama nonvolatile Appl. Phys	, K.; K memo . 39 (2	ojima, K.; Hayak ory cell based on 000) 6157-6161.	awa, F.; Imai, Y.; Kitagawa, A.; Suzuki, M., Submicron reversible phase transition in chalcogenide glasses, Jpn. J.
	CG4	Nang, T.T.; parameters	Okud of Ge	a, M.; Matsushita xSe1-x amorpho	a, T.; Yokota, S.; Suzuki, A., Electrical and optical
	CH4	Narayanan electrical so	, R.A.; witchin	Asokan, S.; Kur g in chalcogenid	mar, A., Evidence concerning the effect of topology on the network glasses. Phys. Rev. B 54 (1996) 4413-4415. **
	CI4	Neale, R.G	.; Asel	tine, J.A., The a	pplication of amorphous materials to computer memories, v. Ed-20 (1973) 195-209. **
	CJ4	Ovshinsky	S.R.; F	ritzsche, H., Re	versible structural transformations in amorphous ogic, Mettalurgical transactions 2 (1971) 641-645. **
	СК4	Ovshinsky,	S.R.,	Reversible electrics) 1450-1453.	rical switching phenomena in disordered structures. Phys.
Jms	CL4	Owen, A.E.	, LeC	omber, P.G.; Sar	rrabayrouse, G.; Spear, W.E., New amorphous-silicon

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

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Sheet	7	of	8	Attorney Docket Number		

		7 Of Committee Miles Mil
(m)	1	electrically programmable nonvolatile switching device, IEE Proc. 129 (1982) 51-54 **
A	CM4	Owen, A.E.; Firth, A.P.; Ewen, P.J.S., Photo-induced structural and physico-chemical changes in amorphous chalcogenide semiconductors, Phil. Mag. B 52 (1985) 347-362.
	CN4	Owen, A.E.; Le Comber, P.G.; Hajto, J.; Rose, M.J.; Snell, A.J., Switching in amorphous devices, Int. J. Electronics 73 (1992) 897-906.
T	CO4	Pearson, A.D.; Miller, C.E., Filamentary conduction in semiconducting glass diodes, App. Phys. Lett. 14 (1969) 280-282. **
	CP4	Pinto, R.; Ramanathan, K.V., Electric field induced memory switching in thin films of the chalcogenide system Ge-As-Se, Appl. Phys. Lett. 19 (1971) 221-223. **
	CQ4	Popescu, C., The effect of local non-uniformities on thermal switching and high field behavior of structures with chalcogenide glasses, Solid-state electronics 18 (1975) 671-681. **
	CR4	Popescu, C.; Croitoru, N., The contribution of the lateral thermal instability to the switching phenomenon, J. Non-Cryst. Solids 8-10 (1972) 531-537. **
	CS4	Popov, A.I.; Geller, I.KH.; Shemetova, V.K., Memory and threshold switching effects in amorphous selenium, Phys. Stat. Sol. (a) 44 (1977) K71-K73. **
	CT4	Prakash, S.; Asokan, S.; Ghare, D.B., Easily reversible memory switching in Ge-As-Te glasses, J. Phys. D: Appl. Phys. 29 (1996) 2004-2008. **
	CU4	Rahman, S.; Sivarama Sastry, G., Electronic switching in Ge-Bi-Se-Te glasses, Mat. Sci. and Eng. B12 (1992) 219-222. **
	CV4	Ramesh, K.; Asokan, S.; Sangunni, K.S.; Gopal, E.S.R., Electrical Switching in germanium telluride glasses doped with Cu and Ag, Appl. Phys. A 69 (1999) 421-425. **
	CW4	Rose,M.J.;Hajto,J.;Lecomber,P.G.;Gage,S.M.;Choi,W.K.;Snell,A.J.;Owen,A.E., Amorphous silicon analogue memory devices, J. Non-Cryst. Solids 115 (1989) 168-170. **
	CX4	Rose,M.J.;Snell,A.J.;Lecomber,P.G.;Hajto,J.;Fitzgerald,A.G.;Owen,A.E., Aspects of non-volatility in a -Si:H memory devices, Mat. Res. Soc. Symp. Proc. V 258, 1992, 1075-1080, **
	CY4	Schuocker, D.; Rieder, G., On the reliability of amorphous chalcogenide switching devices, J. Non-Cryst. Solids 29 (1978) 397-407. **
	CZ4	Sharma, A.K.; Singh, B., Electrical conductivity measurements of evaporated selenium films in vacuum, Proc. Indian Natn. Sci. Acad. 46, A, (1980) 362-368.
	CA5	Sharma, P., Structural, electrical and optical properties of silver selenide films, Ind. J. Of pure and applied phys. 35 (1997) 424-427. **
	CB5	Snell, A.J.; Lecomber, P.G.; Hajto, J.; Rose, M.J.; Owen, A.E.; Osborne, I.L., Analogue memory effects in metal/a-Si:H/metal memory devices, J. Non-Cryst. Solids 137-138 (1991) 1257-1262. **
	CC5	Snell, A.J.; Hajto, J.;Rose, M.J.; Osborne, L.S.; Holmes, A.; Owen, A.E.; Gibson, R.A.G., Analogue memory effects in metal/a-Si:H/metal thin film structures, Mat. Res. Soc. Symp. Proc. V 297, 1993, 1017-1021. **
	CD5	Steventon, A.G., Microfilaments in amorphous chalcogenide memory devices, J. Phys. D: Appl. Phys. 8 (1975) L120-L122. **
	CE5	Steventon, A.G., The switching mechanisms in amorphous chalcogenide memory devices, J. Non-Cryst. Solids 21 (1976) 319-329. **
	CF5	Stocker, H.J., Bulk and thin film switching and memory effects in semiconducting chalcogenide glasses, App. Phys. Lett. 15 (1969) 55-57. **
	CG5	Tanaka, K., Ionic and mixed conductions in Ag photodoping process, Mod. Phys. Lett B 4 (1990) 1373-1377. **
	CH5	Tanaka, K.; Iizima, S.; Sugi, M.; Okada, Y.; Kikuchi, M., Thermal effects on switching phenomenon in chalcogenide amorphous semiconductors, Solid State Comm. 8 (1970) 387-389.
V	CI5	Thomburg, D.D., Memory switching in a Type I amorphous chalcogenide, J. Elect. Mat. 2 (1973) 3-15. **
Phb	CJ5	Thomburg, D.D., Memory switching in amorphous arsenic triselenide, J. Non-Cryst. Solids 11

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE and to a collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid OMB control and the collection of information unless it contains a valid of the collection of information unless it contains a valid of the collection of information unless it contains a valid of the collection of information unless it contains a

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	\	in amorphous	ars	senic triselenide, Journa	ıl(??) (1972) 4609 - 46 [,]	12. **						
	CL5	Tichy, L.; Tich	xSe1-x and AsxSe1-x systems,	_								
 	CM5	J. Non-Cryst.	Sol	ids 261 (2000) 277-281	Classical audichia a							
1	CIVIS	glasses Phys	ona s. Ra	ev. B 48 (1993) 14650-	, Electrical switching a 14652 **	and short-range order in As-Te						
	CN5	Tranchant,S.;	Pe	tavin,S.;Ribes,M.;Flank	(A.M.:Dexpert.H.:Lag	arde,J.P., Silver chalcogenide	_					
1		glasses Ag-G	ie-S	e: Ionic conduction and	exafs structural inves	stigation, Transport-structure						
1 i		relations in fa	st ic	on and mixed conductor	s Proceedings of the	6th Riso International						
$\vdash \vdash$	1005			September 1985. **								
.	CO5	effects Thin	Soli Ber	nede, J.C., Silver move d Films 57 (1979) 49-54	ements in Ag2Te thin f	ilms: switching and memory						
	CP5	Llemura O : k	Kan	neda V · Kokal S · Sate	w T. Thormally indu	ced crystallization of amorphous	_					
	0. 0	Ge0.4Se0.6, -	J. N	lon-Cryst. Solids 117-11	18 (1990) 219-221. **	·						
	CQ5	Uttecht, R.; S	teve	enson, H.; Sie, C.H.; Gr	iener, J.D.; Raghavan	, K.S., Electric field induced						
<u> </u>		Ifilament forma	atio	n in As-Te-Ge glass, J.	Non-Cryst. Solids 2 (1	1970) 358-370. **						
	CR5	Non-Cryst. Sc	olids	s 33 (1976) 267-272. **	•	amorphous selenium films, J.						
	CS5	Vodenicharov	7, C.	; Parvanov,S.; Petkov,f	., Electrode-limited c	urrents in the thin-film M-GeSe-	_					
\vdash	CT5	M system, Ma	at. C	Chem. And Phys. 21 (19	89) 447-454. **							
1 1	1015	Wetal/silicide	MISI anti	um, G.R.; Camp, J.C.; fuse, IEEE electron dev	Chen, KL.; Tigelaar, / Lett 13 /1992\471-/	H.L., High-performance						
	CU5	Weirauch, D.f	F., 1	hreshold switching and	thermal filaments in	amorphous semiconductors,	_					
		App. Phys. Le	ett. '	16 (1970) 72-73. **								
1	CV5	Zhang, M.; Ma	anc	ini, S.; Bresser, W.; Boo	olchand, P., Variation	of glass transition temperature,	_					
		Tg, with avera	age	coordination number, <	m>, in network glasse	es: evidence of a threshold						
		Solids 151 (19	16 21 002	ope (a i g/a <m>) at the i \ 149-154 - **</m>	igidity percolation thre	eshold (<m>=2.4), J. Non-Cryst.</m>						
	CW5				with submicron capability	y, SPIE Vol. 333 SUBMICRON	_					
\vdash		LITHOGRAPHY, p	pp. 2									
	CX5	Kozicki, et al., "	App	lications of Programmable	Resistance Changes in	Metal-doped Chalcogenides", litors - E.D. Wachsman et al., The						
		Electrochemica	ıl So	ciety, Inc., 1 - 12 (1999), 1	••							
	CY5	Kozicki, et al., /	Nand	oscale effects in devices b., 485-488 (2000). **	ased on chalcogenide so	olid solutions, Superlattices and	_					
	CZ5		Nand	scale phase separation in	Ag-Ge-Se glasses, Mic	roelectronic Engineering, vol. 63/1-						
#	CA6	M.N. Kozicki an	nd M	. Mitkova, Silver incorpora	tion in thin films of selen	ium rich Ge-Se glasses	_					
Am.		Proceedings of	the	XIX International Congres	s on Glass, Society for G	Glass Technology, 226-227 (2001).						

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mes	AT		Mitkova, et al. 'Oual	Chemical Role	of Ag as an Additiv	re in Chalcogenide C	Glasses*, Physical Review	# Letters, Vo.	. 83, No.	. 19, pp	рв. 3848-3851.	**
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

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LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)

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mg	۰۰	Miyatani, <i>El</i>	ectrical Porp	erties of Ag ₂ Se, 13 J.	Phys. Soc. Ja	pan, p. 3	17 (1958)	. **	
									
Tub	ا مه	Mizusaki et	al. Kinetic S	Studies on the Seleniz	ation of Silver,	47 BUL.	CHEM. SC	C. JAPAN,	No. 11
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may.	40	Safran et a	i., TEM stud	ty of Ag ₂ Se developed	by the reaction	n of polyc	crystalline	silver film	s and		
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ATTY. DOCKET NO. MI22-1527

SERIAL NO. 09/797,635

APPLICANT: John T. Moore et al.

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Jny	40		Tai et al., M	ultilevel G	e-Se film i	based resist s	yste	oms, SPIE \	/ol. 333	SUBMICRO	ON LITHOG	RAPHY,
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me	AP		Tai et al., S	ubmicron (optical lithe	ography using	an	inorganic re	sist/polyr	ner bilev	el scheme),
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Sheet 6 of 7 Form PTO-1449 U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. PATENT AND TRADEMARK OFFICE MI22-1527 09/797,635 LIST OF ART CITED BY APPLICANT (Use several sheets if necessary) APPLICANT: John T. Moore et al. FILING DATE **GROUP** March 1, 2001 2813 **U.S. PATENT DOCUMENTS** Examine Initial Name Class Filing Date If Appropriate Subclass Number 44 AB AC AD Æ * AG AH A N **FOREIGN PATENT DOCUMENTS** Document Date *Country Translation Number Yes No OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.) West, DISSERTATION: Electrically Erasable Non-Volatile Memory Via electrochemical Deposition of Multifractal Aggregates, Arizona State University, pp. title page-168 (UMI Co., May 1998). West et al., Equivalent Circuit Modeling of the AglAsassAgassIAg System Prepared by Photodissolution of Ag, 145 J. Electrochem. Soc., No. 9, pp. 2971-2974 (September 1998). Yoshikawa et al., A new inorganic electron resist of high contrast, 31 APPL. PHYS. LETT., No. 3, W

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